WINGED JOINT SYSTEMS
CR-Series

ERIE METAL SPECIALTIES

Description

The Polycrete CR-Series Membrane System is designed for parking deck and open-air structures. It features a preformed, elastomeric membrane, which is fusion-bonded to the concrete deck with Polycrete Elastomeric Concrete. Once installed, this system provides a watertight seal while flexing in response to fluctuations in joint width.

There are several sizes in the CR-Series group to accommodate different joint opening and movement capabilities

The membrane incorporates a center section with a heavy-duty web structure and integral edge flaps with factory punched holes. The Polycrete penetrates the holes to secure the membrane to the base of the concrete block out. The center web configuration is precisely located to exert a continuous and uniform horizontal force against the joint walls.

The CR-Series shapes are specifically designed for applications where maintaining a smooth walking surface is important. A series of grooves across the top surface of the cross-section allows the seals to provide a virtually constant level surface during cyclic action.

Physical Properties

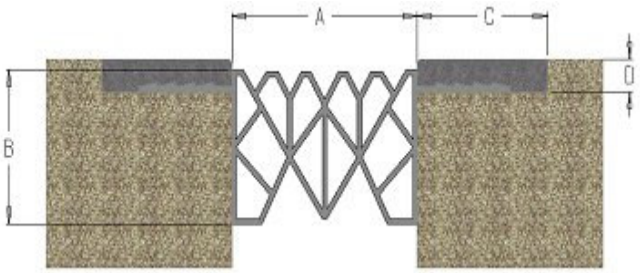
The system consists of two items: an elastomeric membrane and a field-cured header material.

The membrane is available in several sizes. It is an extruded shape made from an EPDM-based, thermo-rubber material (Santoprene®). The material meets requirements of ASTM D2000 and has properties as shown in Table 1.

The Polycrete consists of a combination of a resin mixture and a gradation of sands and aggregate sizes, blended per recommendations of the manufacturer. (See the Polycrete data sheet for further information and technical properties.)

TABLE 1 – Physical Properties of the EPDM-Based Thermo-Rubber Seal Element

Property	ASTM Test Method	Requirement
Tensile strength, min.	D412	1000 psi
Elongation at break, min.	D412	410%
Hardness, Type A durometer	D2240 (modified)	67 +/- 3
Compression set	D395 (Method B)	
168h @ 77°F		24%
168h @ 212°F		36%
Tear strength	D624	140 lb/in
Tension set	D412	10%
100% modulus	D412	420 psi
Specific gravity	D792	0.97
Brittle point	D746	< -81°F



PRODUCT	MIN. WIDTH IN (MM)	MID RANGE IN (MM)	MAX. WIDTH IN (MM)	TOTAL MOVEMENT IN (MM)	DIM. A: IN (MM)	DIM. B: IN (MM)	DIM. C: IN (MM)	DIM. D: IN (MM)
CR-200	0.75" (19.0)	1.38" (35.1)	2.00" (50.8)	1.25" (31.8)	2.00" (50.8)	1.75" (44.4)	3.50" (88.9)	0.75" (19.0)
CR-250	0.75" (19.0)	1.63" (41.4)	2.50" (63.5)	1.75" (44.4)	2.50" (63.5)	2.25" (57.2)	3.50" (88.9)	0.75" (19.0)
CR-325	1.25" (31.8)	2.25" (57.2)	3.25" (82.6)	2.00" (50.8)	3.25" (82.6)	2.75" (69.9)	3.50" (88.9)	0.75" (19.0)
CR-400	1.50" (38.1)	2.75" (69.9)	4.00" (101.6)	2.50" (63.5)	4.00" (101.6)	3.00" (76.2)	3.50" (88.9)	0.75" (19.0)
CR-500	1.75" (44.4)	3.38" (85.9)	5.00" (127.0)	3.25" (82.6)	5.00" (127.0)	3.50" (88.9)	3.50" (88.9)	0.75" (19.0)
CR-600	2.12" (53.8)	4.06" (103.1)	6.00" (152.4)	3.88" (98.6)	6.00" (152.4)	4.25" (107.9)	3.50" (88.9)	0.75" (19.0)